TECHNOLOGICAL INSTITUTE OF THE PHILIPPINES
Quezon City

2023 CURRICULUM FOR BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING (BSIE)

IMPORTANT: Registration in any course/s without all the pre-requisite/s, correct sequence and authorized load shall not be given any credit regardless of the grade/s obtained.

NAME : _____   STUDENT NO : _____

	COURSE CODE		DESCRIPTIVE TITLE	LEC HOURS	LAB HOURS	CREDIT UNITS	PRE-REQUISITE(S)/CO-REQUISITE(S)
FIRST YEAR, FIRST SEMESTER (20 UNITS)							
	EMATH	016	Calculus 1	4	0	4	
	CHEM	001C	Chemistry for Engineers	3	3	4	
	GEC	001	Understanding the Self	3	0	3	
	GEC	004	Mathematics in the Modern World	3	0	3	
	MATH	006	Discrete Mathematics	3	0	3	
	IE	101	Introduction to Industrial Engineering	1	0	1	
	PE	001	Physical Activities Toward Health and Fitness 1 (PATHfit 1)	2	0	2	
	NSTP	001	National Service Training Program 1	(3)	0	(3)	
			TOTAL	**19**	**3**	**20**	
FIRST YEAR, SECOND SEMESTER (22 UNITS)							
	EMATH	017	Calculus 2	4	0	4	EMATH 016(P)
	GEC	003	The Contemporary World	3	0	3	
	PHYS	001C	Calculus-Based Physics	3	3	4	EMATH 017(C)
	IE	004	Statistical Concepts, Theories and Analysis for Industrial Engineering 1	3	0	3	
	GEE	001	General Education Elective 1	3	0	3	
	SOCSC	006	Principles of Economics	3	0	3	
	PE	002	Physical Activities Toward Health and Fitness 2 (PATHfit 2)	2	0	2	PE 001(P)
	NSTP	002	National Service Training Program 2	(3)	0	(3)	NSTP 001(P)
			TOTAL	**21**	**3**	**22**	
SECOND YEAR, FIRST SEMESTER (25 UNITS)							
	IE	302	Industrial Materials and Processes	2	3	3	PHYS 001C(P)
	ITE	001A	Computer Fundamentals and Programming	0	6	2	
	MECH	001	Engineering Mechanics	3	0	3	PHYS 001C(P)
	SOCSC	005	Life and Works of Rizal	3	0	3	
	IE	005	Statistical Concepts, Theories and Analysis for Industrial Engineering 2	2	3	3	IE 004(P)
	IE	006	Strategic and Industrial Organization Management	3	0	3	2nd Year Standing
	MATH	010	Differential Equations	3	0	3	EMATH 017(P)
	GEE	002	General Education Elective 2	3	0	3	
	PE	003	Physical Activities Toward Health and Fitness 3 (PATHfit 3)	2	0	2	PE 001(P)
			TOTAL	**21**	**12**	**25**	
SECOND YEAR, SECOND SEMESTER (25 UNITS)							
	IE	014	Advanced Mathematics for Industrial Engineering	3	0	3	MATH 010(P)
	MATH	013	Linear Algebra with MATLAB	2	3	3	EMATH 016(P)
	CPE	310	Fundamentals of Data Science	0	3	1	
	IE	007	Work Study and Measurement/Productivity Analysis	3	3	4	IE 005(P) IE 006(P) IE 302(P)
	GEC	006	Art Appreciation	3	0	3	
	AC	004	Financial Accounting	3	0	3	SOCSC 006(P)
	IE	008	Industrial and Organizational Psychology	3	0	3	2nd Year Standing
	GEE	003	General Education Elective 3	3	0	3	
	PE	004	Physical Activities Toward Health and Fitness 4 (PATHfit 4)	2	0	2	PE 001(P)
			TOTAL	**22**	**9**	**25**	
THIRD YEAR, FIRST SEMESTER (25 UNITS)							

TECHNOLOGICAL INSTITUTE OF THE PHILIPPINES
Quezon City

	COURSE CODE		DESCRIPTIVE TITLE	LEC HOURS	LAB HOURS	CREDIT UNITS	PRE-REQUISITE(S)/CO-REQUISITE(S)
	GEC	002	Readings in Philippine History	3	0	3	
	CPE	003	Computer-Aided Drafting	0	3	1	
	IE	003A	Operations Research 1: Deterministic Approach	2	3	3	IE 014(P) MATH 013(P)
	IE	009	Ergonomics 1: Physical and Cognitive Ergonomics	2	3	3	IE 007(P) IE 008(P)
	IE	304	Quality Management Systems	3	0	3	IE 005(P) IE 007(P)
	ME	004	Thermodynamics	3	0	3	EMATH 017(P) PHYS 001C(P)
	ME	005	Engineering Economics	3	0	3	3rd Year Standing
	AC	005	Managerial Accounting	3	0	3	AC 004(P)
	IE ELEC	1	IE Elective 1	3	0	3	See track for pre-requisite(s)
			TOTAL	**22**	**9**	**25**	
THIRD YEAR, SECOND SEMESTER (23 UNITS)							
	COE	002A	Introduction to Intellectual Property	0	3	1	3rd Year Standing
	GEC	005	Purposive Communication	3	0	3	
	EE	001	Basic Electrical Engineering	2	3	3	PHYS 001C(P)
	IE	010	Ergonomics 2: Work Design	2	3	3	IE 009(P)
	IE	404A	Operations Research 2: Stochastic Approach with Simulation	2	3	3	IE 003A(P) MATH 006(P)
	IE	405	Project Feasibility	2	3	3	AC 005(P) ME 005(P)
	IE	011	Production and Operations Management with Industry Software Applications	3	3	4	IE 003A(P) IE 304(P) IE 404A(C)
	IE ELEC	2	IE Elective 2	3	0	3	See track for pre-requisite(s)
			TOTAL	**17**	**18**	**23**	
THIRD YEAR, SUMMER (9 UNITS)							
	IE	013	Supply Chain Management	3	0	3	IE 011(P)
	IE	505	Systems Engineering	3	0	3	IE 011(P)
	IS	001	Information Systems	3	0	3	IE 013(C)
			TOTAL	**9**	**0**	**9**	

NO STUDENT SHALL BE ALLOWED TO TAKE FOURTH YEAR PROFESSIONAL COURSES UNLESS HE HAS COMPLETED THE BASIC AND THE THIRD YEAR COURSES INCLUDING PE AND NSTP COURSES.

	COURSE CODE		DESCRIPTIVE TITLE	LEC HOURS	LAB HOURS	CREDIT UNITS	PRE-REQUISITE(S)/CO-REQUISITE(S)
FOURTH YEAR, FIRST SEMESTER (24 UNITS)							
	ENVI	001A	Environmental Science	3	0	3	4th Year Standing
	GEC	008	Ethics	3	0	3	
	IE	504	Multi-Criteria Decision Making	3	0	3	IE 404A(P)
	IE	018	IE Design Project 1	2	3	3	4th Year Standing,IE 504(C)
	GEC	007	Science, Technology and Society	3	0	3	
	IE	501	Undergraduate Research for IE	1	6	3	IE 005(P) IE 011(P)
	BOSH	101	Basic Occupational Safety and Health	3	0	3	4th Year Standing
	IE ELEC	3	IE Elective 3	3	0	3	See track for pre-requisite(s)
			TOTAL	**21**	**9**	**24**	
FOURTH YEAR, SECOND SEMESTER (13 UNITS)							
	IE	017	On-the-Job Training for IE	0	240	2	4th Year Standing
	TECH	101A	Technology Entrepreneurship	3	0	3	4th Year Standing
	IE	012A	Seminars/Colloquia on Current and Emerging	0	3	1	IE 501(P)
	SAP	001	SAP Business Process Integration (BPI)	0	3	1	4th Year Standing
	IE	019	IE Design Project 2	1	6	3	Graduating IE 018(P)
	IE	015	Industrial Engineering Values and Ethics	3	0	3	Graduating
			TOTAL	**7**	**252**	**13**	
ELECTIVE COURSES							
TRACK ELECTIVE 1 (Organization and Decision Systems)							
	IE-E1	408	Project Management	3	0	3	IE 003A(C)
	IE-E2	573	Risk Management	3	0	3	IE 304(P)
	IE-E3	016	Special Topics and Problems in IE	3	0	3	IE 011(P)
			TOTAL	**9**	**0**	**9**	

TECHNOLOGICAL INSTITUTE OF THE PHILIPPINES
Quezon City

			TRACK ELECTIVE 2 (Railway Engineering)				
	RWE	001	Introduction to Railway Systems and Engineering	3	0	3	
	RWE	023	Railway Management, Governance and Operations	3	0	3	RWE 001(P)
	RWE	004	Advanced Topic on Railway Engineering	3	0	3	RWE 023(P)
			TOTAL	**9**	**0**	**9**	
			TRACK ELECTIVE 3 (Data Science)				
	CPE	311	Computational Thinking with Python	2	3	3	CPE 310(P) IE 005(P) MATH 013(P)
	CPE	312	Predictive Analytics using Machine Learning	2	3	3	CPE 311(P)
	CPE	313	Advanced Machine Learning and Deep Learning	2	3	3	CPE 312(P)
			TOTAL	**6**	**9**	**9**	

CREDENTIALS PRESENTED: **DEFICIENCY/IES:**

( ) F137A ( ) NSO Birth Certificate   _____

( ) F138 ( ) HD   _____

( ) GMC ( ) TOR   _____

Evaluated By: _____   **LEGEND**

Date: _____   P = Pre-requisite

Received By: _____   C = Co-requisite

Date: _____

NOTE: EVALUATION IS TENTATIVE AND MAY BE REVISED FOR SOME VALID CAUSES OR REASONS OR IF OMISSIONS AND/OR LACK OF UNITS CREDITED BE DISCOVERED LATER.